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ABSTRACT

In the face of widespread geographic ignorance, the article applauds the improved status of geography in the schools, describing it as the science best able to meet the challenge of ensuring that students' mental maps of the world are filled in with great and accurate detail. The field is defined through a multiple definition as both a physical and social science employing spatial and temporal methodologies to explain the varied phenomena of the earth's surface. It is also described as a unifying, holistic field that integrates and draws from many other fields of study. Citing the guidelines for geographic education formulated in 1984 by the National Council for Geographic Education and the Association of American Geographers, the article addresses the task of properly revising or designing a geography curriculum by highlighting the five central themes of geography education (location, place, relationships within places, movement, and regions) and recommending a scope of instruction that lists 12 courses of study for grades 7 through 12. An implementation project to improve the status and quality of geography instruction based on the guidelines is described as it exists in four schools. (TRS)

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GEOGRAPHIC LITERACY: ESSENTIAL IN A GLOBAL AGE

BY

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Geographic Literacy: Essential in a Global Age

Do Americans know their geography?
No, according to a 1979 report by the Presidential Commission on Foreign Language and International Studies[1] which stated:

> Americans' knowledge of other countries is scandalous and it's becoming worse . . . American efforts have fallen short in international education . . . our foreign policy, trade, and relations may be in jeopardy unless we redress these insufficiencies.

Such widespread geographic ignorance reflects the decline of geography in elementary and secondary school curricula in the last 25 years. This decline was caused, or at least encouraged, by competition from other social studies areas, but underlying this decline was a lack of understanding by curriculum makers and teachers of the real nature and uses of geographic knowledge.

In the last few years, however, geography's place in the secondary school curriculum has been significantly bettered in about a dozen states, and actions that would elevate the status of this subject matter field are pending in several others.

What Is Where, and Why?

The word "geography" connotes many things to many people. First used by the Greek Eratosthenes more than 2,000 years ago, the literal meaning of the word is "to write about the earth." Today, however, geography is often used in a restrictive sense: to connote only specific place, location, or area with reference to the earth's physical or natural environments, areas, or regions, or solely in reference to map and globe skills.

Geography, of course, involves much more than the foregoing elements and skills. It offers a unique methodology, *a distinct way of organizing and analyzing information pertaining to the earth's features and environments, both natural and human.* Geographers study the varied features and conditions of the earth's surface in a spatial organizational context, asking "What is where?" and also, "Why?" and "What of it?"

This definition of geographers' concerns can be expanded to include the following:

What: All features, both natural and human, on the earth's surface.

Where: Location, both specific and relative (including such concepts as place, space, area, region, pattern, and distribution).

Why: Explanations of processes, change agents, and interrelationships between and among phenomena.

What of it: Significance or relevance to people, cultures, nations, or the global community.

As both a physical and social science, geography serves as a bridge linking the natural world to the human. In many respects, this has hindered the acceptance of the discipline in a curriculum traditionally compartmentalized into "natural sciences" and "social sciences."

Geography and history have long served as the "core" of human inquiry as it pertains to earth and humankind. The two methodologies are inseparable; geographers draw from the well of historical knowledge and frequently employ the historical approach to research and teaching.

Geography, then, is both a physical and social science employing spatial and temporal methodologies in attempting to explain the varied phenomena of the earth's surface. In this role it is a unifying, correlative, holistic field that integrates otherwise fragmented and disparate bits of knowledge. The content of geography is drawn from across the traditional "boundaries" of many other fields of study, including the arts and humanities.

And What of It?

We can ill-afford to remain ignorant of the world around us. The compression of time and space made possible by the technological explosion has placed even our most remote global neighbors at our very doorstep. All nations and cultures have become interdependent.

In an increasingly complex world, it is essential that all citizens have a fundamental understanding of world geog-

Geographic Education and Global Understanding

By Gilbert M. Grosvenor, president, National Geographic Society

Simple tests at all levels of our educational system have revealed a shocking lack of even the most basic geographic knowledge of the world. The consequences of geographic illiteracy are indeed frightening. We are a nation with worldwide involvements and responsibilities.

If we remain ignorant about the world in which we must work how can we expect our future decisionmakers to function competently and intelligently? Are we not gambling with our national future when we ignore the essential contribution of geographic education to world understanding?

Can you imagine a banker making sage decisions about international loans with no geographic knowledge of the countries involved? Or a statesman considering the international ramifications of acid rain with no basic understanding of wind patterns? Or a physician treating tropical diseases with no comprehension of the complex tropical environments in which those diseases thrive?

Without a fundamental background in geography it is not possible to fully comprehend these issues, much less find the appropriate solutions to the problems with which they are associated.

Geographic ignorance has become so critical in the United States that we are flirting with danger. Knowledge of geography is not just a nice idea; it is essential to our well-being as individuals and to our national strength and survival as a world leader.

The consequences of geographic ignorance are so untenable that the National Geographic Society has committed millions of dollars to new programs that will help combat this illiteracy. We already have two pilot programs for the junior high school level and an institute for 40 teachers was held at NGS headquarters last summer. Computer software, videodiscs, and multimedia materials focusing on the fundamental themes of geography are in the planning stages.

This is just a beginning; much more is to be done.

Not one of us in this country should rest until the level of geographic literacy is raised to such proportions that our children will be able to function as thoughtful, intelligent citizens of this nation and of this world.

Your individual and collective support as secondary school principals is vital to effecting the necessary turnaround in geographic education. We must commit our time and energy to this task now. We are already at the eleventh hour.

raphy. We must be aware of basic physical and cultural conditions and patterns, their locations and divisions, and their primary networks and systems. We must know what is where, how things work, and the importance of peoples and places on a global scale. We also must have well-developed "mental maps" of the earth and its varied conditions and patterns.

Geography is the science best able to meet the challenge of ensuring that students' mental maps of the world are filled in with great and accurate detail.

To individuals lacking a precise mental map of the earth, the planet presents a fragmented and confusing hodgepodge of meaningless and unrelated phenomena. Their world is inhabited by faceless people and cultures lacking character, vitality, deeply ingrained customs and institutions, a proud heritage, or locational context. Places lack meaning to the geographic illiterate. Their world is one of ill-defined physical features and patterns for which they lack appropriate terminology, meaningful mental images, an understanding of formative processes, or sufficient knowledge of ecological limitations to make wise decisions regarding the sound exploitation and essential protective care of our fragile planetary life support system.

To persons possessing a vague mental map, historical events occur in a spatial vacuum, with history and geography remaining segmented and unrelated in space and time. They remain passive observers of the global problems, issues, and events that influence our lives on a regular basis; they lack the knowledge to make sound evaluations and render reasoned judgments.

To individuals lacking knowledge of world cultures and differing human value systems, the mosaic of cultural differences may appear to be strange and threatening. Fear of ways of life that differ from our own may lead to prejudice and discrimination. Such individuals are poorly prepared to assume full, enlightened, and meaningful citizenship in the global community.

Many years ago, John Dewey said that geography occupies the center of the curriculum. But during most of the 20th century the subject has languished in our secondary schools. It is sobering to realize that educated citizens in most of the world know not only more about global geographic patterns, but more about geographic conditions in the United States, than do a majority of our own citizens.

Logically, one might question how Americans can expect to maintain a position of world strength, leadership, political and economic vitality, and respect in a world of nations about which we know and seemingly care so little. It is precisely this concern that is being addressed by those administrative decisions that return geography to the secondary school curriculum.

Implementing current recommendations for changes in geographic education will ensure that students will enter the adult world with a better-developed mental map of the earth than has been true of American adolescents during recent decades.

Mapping the Field

For decades, the task of developing geography curriculum patterns and content has been left largely to supervisors and teachers at the local level. Perhaps the greatest influence on course content and sequence in the middle and junior high school grades today is the textbook. Little continuity exists in the development of a meaningful scope and sequence of geographic concepts, factual data, and skills from grade to grade. In many instances, geography is regarded as a package to be introduced but briefly, perhaps during the junior high grades, and then forgotten. Few high school geography courses can build upon students' formerly acquired knowledge.

The geography profession is beginning to take steps to address this condition. Professional associations of geographers and teachers of geography are combining their resources to make available to educators clearer expressions of the goals of geographic education, guidelines for designing instruction to meet those goals, and suggestions of appropriate course sequences.

One such cooperative effort involving the National Council for Geographic Education and the Association of American Geographers was initiated in 1983 when a joint committee was formed to formulate a set of guidelines for K-12 geographic education. The work of this committee, aided by hundreds of educators from all instructional levels, culminated in 1984 with the publication of a 26-page booklet entitled, *Guidelines for Geographic Education: Elementary and Secondary Schools.*[2]

The *Guidelines* present in readily understandable language:

- A coherent rationale for the role of geography in the curriculum
- An explanation of the content and processes of geographic education
- A definition of the place of geography in the curriculum
- An outline of the role and sequence of geographic education for various school levels
- A list of desired learning outcomes, including geographic skills and their applications.

This booklet should be made available to social studies and other teachers for study and reference in designing or revising their courses of study.

To aid secondary school administrators, the sponsoring organizations, NCGE and AAG, have given the *Curriculum Report* permission to abstract, excerpt, abridge, or make such other uses of the *Guidelines* as may be appropriate in this context. The next two sections are drawn from that source.

Geography's Central Themes

Geographic education has *five central themes:* location, place, relationships within places, movement, and regions. Each of the themes, although central to geographic inquiry, are also relevant in the context of other social studies. Additionally, the themes are inescapable elements of our everyday lives. These central themes can be easily integrated into the existing program of studies.

- *Location: Position on the Earth's Surface*

  Absolute and relative location are two ways of describing the positions of people and places on the earth's surface.

  Absolute location is the precise point on the earth's surface where an object is to be found, customarily defined by coordinates of latitude and longitude.

  Relative location provides information critical to understanding the interdependence of peoples on a local, regional, national, and global scale.

- *Place: Physical and Human Characteristics*

  All places on the earth have distinctive characteristics that give them meaning and character and distinguish them from other places. Geographers generally describe places by their physical or human characteristics, as well as by their location.

  Physical characteristics derive from the geological, hydrological, atmospheric, or biological processes that produce landforms, bodies of water, climates, soils, natural vegetation, and animal life.

  Human characteristics include ideas, technology and skills, perceptions, and actions that shape the nature of places. Places vary in their population composition, as well as in their settlement patterns, architecture, kinds of economic and land use activities, recreation, and networks of transportation and communication. One place can also be distinguished from another by the ideologies and religious or philosophical tenets of the people who live there; by their languages and their forms of social and political organization.

- *Relationships Within Places: Humans and Environments*

  All places on earth have advantages and disadvantages for human settlement. People modify or adapt to natural environmental settings in ways that reveal their cultural values, economic and political circumstances, and technological abilities. Geography focuses on understanding how human-natural environment relationships develop and what the consequences are for both people and the environment.

  Studying geography furthers our appreciation for the natural environment and of our cultural heritage. It also shows that our actions produce both intentional and unintentional consequences. Studying the complex nature of the human-environment relationships provides an important foundation for promoting responsible environmental attitudes and is also critical in training the professionals to whom we entrust environmental planning and management.

- *Movement: Humans Interacting on the Earth*

  Human beings occupy places unevenly across the face of the earth. Some live on farms or in the country, others in towns or cities. Yet these people interact with each other: they travel from place to place; they communicate with each other; they rely on materials, products, information, and ideas that come from beyond their immediate location and environment. The most visible evidences of global interdependence and the interaction of places are the transportation and communication linkages that connect all parts of the world.

  In many practical ways, geography helps to explain

varied patterns in the movements of people, ideas, and materials. Planning for city transportation systems, tracing and explaining the diffusion of technological innovations, or suggesting alternative trading routes require geographical analyses and decisions that will improve the efficiency of movement between and among places.

- *Regions: How They Form and Change*

  The basic unit of geographic study is the region, an area that displays unity in terms of one or more criteria. We are all familiar with regions showing the extent of political power: countries, states, cities, and so on. Yet there are countless ways of defining regions depending on the problems being considered; e.g., language groups, landforms, and climate.

  Regions perform a multitude of functions in geographic education. They define convenient and manageable units on which to build our knowledge of the world. We may view regions as an intermediate step between our knowledge of local places and our knowledge of the entire planet. They can help us see the earth as an integrated system of places that we can comprehend as a planetary ecosystem.

Guidelines for Designing Learning

The *Guidelines* also presents a recommended scope of geographic instruction in the elementary school, whether in separate courses or in the context of other learning fields. Such contextual learning should be continued throughout the secondary school years, with the addition of learning opportunities that deal more directly with geographic information, methodology, and issues. The booklet lists and describes briefly a series of courses, based on the five themes, to assist junior and senior high school educators with their efforts to upgrade the geographic education available to their students. That list is reproduced here.

7-9 *State or Regional Geography* (one semester)
A course in state or regional geography allows students to study places at an intermediate scale where they can observe and examine problems that are of immediate as well as national and global significance. Problems within the state or region that have geographic dimensions should form the basis of class discussions to help students see how values and attitudes influence the definition and resolution of issues.

World Geography (two semesters)
This course will help students to discern the global patterns of physical and cultural characteristics such as sun-earth relationships, atmospheric and oceanic circulation, landforms, climate, population, transportation and communication, economic linkages, and cultural diffusion. The second semester would provide an opportunity to study the five basic themes as they apply to selected regions and among regions.

8-10 *Earth Sciences* (one semester)
Themes in physical geography comprise a substantial portion of course content. Students study processes that shape the physical environment such as the hydrologic cycle, tectonic and erosional processes, and the geography of oceans.

United States Geography (one semester)
A systematic and regional analysis will demonstrate the relationship of the U.S. to its development as a nation. Topics for discussion may include population shifts; unequal economic growth and regional disparities in unemployment; women in the labor force; agricultural organization and land use; and environmental amenities.

9-12 *Environmental Geography* (one semester)
This course focuses on the natural environment, its interpretation and management on local, national, and global scales. It includes investigation of the elements and functioning of ecosystems, and differences in perceptions of the environment and environmental quality, including issues of preservation, conservation, and the management of environmental pollution.

Urban Geography (one semester)
The course focuses on urban areas as the dominant features of the cultural landscape. Students will study how urban areas are connected by the flow of people, goods, and ideas. They will also learn how massive urban concentrations have developed in various regions of the world.

Political Geography (one semester)
The course examines the relationship between politics and territory; how natural environments, the configuration of land and water masses, distribution of population and resources, and levels of technological development influence political decisions. The course should help students understand the complex interactions among political units at different levels and across cultures.

Cultural Geography (one semester)
Cultural geography deals with how the activities of different culture groups affect the form, use, and personality of the landscape. It may explore a variety of themes; for example, the human use of the habitat and its resources, the origin and spread of cultures, and the geography of settlement forms.

Historical Geography (one semester)
This is the study of the past or of past landscapes during a particular period such as colonial America, or the Middle East during the rapid expansion of Islam, or of pre-Columbian Latin America. Another approach could be the study of the geography of selected cultures during important historical periods, such as the geography of the Roman Empire or ancient Egypt.

Economic Geography (one semester)
This is a study of local factors and the processes that influence the development and distribution of economic activities. The course will address the local, regional, national, and global distribution and flow of resources, workers, and capital. Students will study the way decisions are made about the location of economic activities such as resource

extraction, agricultural and manufacturing production, and the exchange of information and research findings.

Problems in Local Geography (one semester)
Such a course permits students to apply previously learned geographic knowledge and skills to the study of their own communities. Among suitable topics are: selection of a site for a retail store or health care center, an analysis of the public transportation system with emphasis on differential use by, for instance, income and age groups, and the development of ethnic regions within the local community.

11-12 *Honors Courses in Geography* (one or more semesters)
Honors courses offer students with special interests and abilities opportunities for research and/or in-depth study of selected topics in human and physical geography. Among such topics are: population distribution and migration, map reading and photo interpretation, and cartography and graphics.

To summarize the value of such courses and the importance of geographic studies, we draw again on the *Guidelines*:

> Geography helps to explain historical events, scientific processes, social organization, cultural development, political processes, and spatial relationships. Geography provides students with survival skills for understanding and coping with their own environment.

An Implementation Project

The case made in the *Guidelines* for upgrading the status of geography in the secondary school curriculum has started to influence instruction in a number of schools around the country. To inform a wider population, the National Council for Geographic Education (NCGE) and the Association of American Geographers (AAG) decided to pool their resources to promote the implementation of the *Guidelines'* recommendations.

Last July, the National Geographic Society (NGS) and the American Geographical Society (AGS) joined with NCGE and AAG to create the *Geographic Education National Implementation Project* (GENIP).[3] The project's goal is to improve the status and quality of geographic instruc tion at all school levels. Among its more specific objectives are:

- To improve pre and inservice teacher training in geography
- To provide detailed course and curriculum outlines
- To develop networks of schools and universities for the exchange of information about ideas and practices
- To support other activities that will improve the geographic literacy of America's citizens.

The project is managed by a seven-member steering committee, one of whom is a high school geography teacher. GENIP has assembled a nationwide network of 400 or more geographic educators, a large number of whom are elementary and secondary school teachers and social studies supervisors, to exchange and critique information and practices in geographic education. This network is open-ended, and GENIP welcomes and encourages inquiries from secondary school teachers and schools who would like to participate in this national curriculum improvement effort.[4]

Exempli Gratia

MARKHAM INTERMEDIATE SCHOOL, 1650 East 104th St., Los Angeles, Calif. 90002. Mr. Beverley Martin, Principal. *Contacts:* Richard Fuchs and Dorothy Fuchs, geography teachers.

The geography curriculum at Markham Intermediate School follows the State of California and the Los Angeles Unified School District curriculum guidelines for the discipline. Students are provided with world atlases in grades 6 and 7, and with specialty atlases specifically relating to the geography of U.S. history in grade 8. This is in addition to the text in social studies and geography.

The geography courses are rigorous in skills and concepts. Each student explores the world in terms of spatial geography, latitude and longitude skills, air routes and their rationale, the geography of religion, economic geography, agricultural geography, and natural resource geography.

After each unit in the curriculum, the students are asked to analyze each of the components showing the increasing global interdependence of humankind and the special problems that humankind must face along with this interdependence.

Writing is a very important component of the geography program. Initially, students are asked to describe a country in a simple 10-sentence essay using political and physical maps. Later, students will write 150-word essays comparing and contrasting two countries using political, physical, and as many as five other specialty maps.

BENJAMIN BOSSE HIGH SCHOOL, 1300 Washington Ave., Evansville, Ind. 47714. Robert Adams, principal. *Contact:* Don L. Hunter, chairman, social studies department.

As a part of the social studies curriculum at Bosse High School, students in grades 11 and 12 may take a one-semester elective in physical geography. The content level has been developed into an honors course and utilizes the same text currently in use at DePauw University and the University of Evansville. This year seniors with a 3.00 (of 4.00) or better average may take the class for three semester hours of college credit through the University of Evansville's "High School Bridge Program."

The basic objectives of the course are:

- To develop an understanding and appreciation of the physical elements that make up the earth.
- To promote insights into concepts that may be related to everyday life; i.e., understanding weather forecasts or the causes and effects of natural disasters.
- To establish concern in preventing the abuse of our resources and the deterioration of our environment.

The class includes a three-day field seminar in the Pine Mountains of eastern Kentucky, where students view firsthand many of the concepts examined in the classroom.

NORTHWESTERN HIGH SCHOOL, Hyattsville, Md. 20782. *Contacts:* Luther W. Fennell, principal, and Ronald Anderson, administrative assistant.

The Prince George's County, Md., board of education requires that all ninth grade students complete a course in world geography for graduation. Offered at all 20 high schools in the system, *Geography of the Modern World* is a semester course that provides the student with an overview of the major physical and cultural features of the world and world regions. The major emphasis of the course is the study of economic/industrial development and those factors that influence this development in the different regions of the world. Through the use of case studies, students complete in-depth investigations of several of the world's industrial and non-industrialized nations. The course concludes with a study of world interdependence and its implications.

Geography of the Modern World is also used as the foundation for the world history course required in the tenth grade, and for American history in the eleventh. A major emphasis is placed on map skills. Students also learn to analyze qualitative and quantitative data presented in graph and tabular form. Major study skills developed are information gathering and interpretation, critical thinking, listening, note taking, and time organization.

Upon completion of *Geography of the Modern World*, students should be able to:

1. Locate places using direction, distance, and grids
2. Locate and describe major physical features and culture regions of the world
3. Identify some of the major characteristics of industrialized and less industrialized nations
4. Locate major industrialized and less industrialized nations
5. Give examples of ways that people of the world are interdependent
6. Compare other major nations of the world with the United States in terms of key development indicators
7. Identify problems related to world interdependence and how they might be resolved
8. Demonstrate basic study skills.

NEW TRIER TOWNSHIP HIGH SCHOOL, 385 Winnetka Ave., Winnetka, Ill. 60093. Frank McGee, principal. *Contact:* James Marran, geography teacher and social studies department chairman, member of the GENIP steering committee.

Tenth, eleventh, and twelfth grade students may elect a two-semester program in *World Regional Geography*. The program is designed to help develop techniques of critical inquiry through a variety of activities and assignments. Students study the world's major culture regions—Anglo-American, South America and the Caribbean Basin, North Africa/Southwest Asia, Sub-Saharan Africa, Western Europe, the Soviet Union and Eastern Europe, China, India and Southeast Asia, and the Western Pacific—Japan, Australia, New Zealand, and Oceania. Units on Antarctica and environmental perceptions of various islands of the world are optional.

Case studies are used extensively to familiarize students with the processes geographers use to assess and solve problems. They are introduced to local geography through a day-long field trip each semester to selected sites in the Chicago metropolitan area.

Endnotes

1. Government Printing Office, "Strength Without Wisdom: A Critique of U.S. Capability" (Washington, D.C.: GPO, 1979).
2. *Guidelines for Geographic Education* is available from the National Council for Geographic Education, Western Illinois University, Macomb, Ill. 61455 and from the Association of American Geographers, 1710 16th St., NW, Washington, D.C. 20009 for $3 per copy.
3. For further information, write to Salvatore J. Natoli, Director, Geographic Education National Implementation Project, 1710 16th Street, NW, Washington, D.C. 20009.

KUDOS

This *Curriculum Report* was developed by Charles F. Gritzner in the Department of Geography at South Dakota State University, with assistance from Douglas A. Phillips, social studies program coordinator, Anchorage (Alaska) School District. Professor Gritzner is the current president of the National Council for Geographic Education. The assistance of Salvatore J. Natoli, educational affairs director of the Association of American Geographers, was also most helpful.

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